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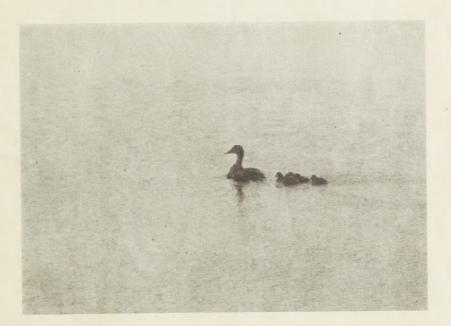
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## PRODUCING EIDER-DOWN

BY

HARRISON F. LEWIS





AN EIDER FAMILY

Canadian National Parks Branch
Department of the Interior

[1926?]

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## HARRISON F. LEWIS

NE of Canada's natural resources to which attention is being particularly directed at the present time is eider-down. The name "eider-down" is often misapplied, but genuine eider-down is the natural downy material growing among the feathers of the breast of the female of the wild Eider Duck. Eider-down has no stiff quill, and is astonishingly soft, light, and elastic. Since it is also a very poor conductor of heat, it conserves warmth, and is an ideal material for the filling of quilts, comforters, and similar articles of bedding. It is also used in making the best sleeping-bags and in lining the backs of coats. So light is it that the eider-down in a full-size comforter weighs only one and one-half to two pounds.

In colour, eider-down is brownish-grey or mouse colour, but with a whitish area about the root of each separate piece, so that a mass of down appears

brownish-grey, with numerous flecks of lighter colour.

At present most of the world's supply of eider-down comes from Iceland, Greenland, and Norway, in which countries Eider Ducks are very plentiful. In 1920 the total amount of eider-down produced in Iceland was 7,467 pounds, of which 5,610 pounds were exported. The price of eider-down varies, but at present ranges from \$3 to \$5 or more per pound. Collectors of eider-down in Iceland and Norway often derive very comfortable incomes from the industry.

Eider-down is gathered from the nests of the wild Eider Ducks, where it is placed by the ducks themselves. There are several different kinds of these wild Eider Ducks in Canada. They are closely related to the Eiders of Iceland and Norway, and their down is as valuable as that produced in those countries. They nest chiefly on or near the eastern and northern coasts of the Dominion, particularly in the lower St. Lawrence river, along the north shore of the gulf of St. Lawrence, and in Arctic Canada. In various parts of their range they are known by different names, such as Sea Duck, Moyac, Ducks and Drakes, Eskimo Duck, and Metic.

The Eiders of Canada are large ducks, about 23 inches in length. During the greater part of the year the drakes are handsome fellows, very conspicuously dressed in white and black, with a tinge of greenish or of bluish grey about the head. The female Eiders are less conspicuous, being greyish-brown and buffy, with fine markings of black and with two narrow lines of white across each wing. Eiders are easily recognized by residents of regions where they com-

monly occur.

The natural home of the Eiders is the sea. They are expert swimmers having no fear of rough water. Mussels, sea-cucumbers, star-fish, and similar organisms, which they obtain by diving to the sea-bottom, constitute most of

heir food

The Eiders usually begin nesting when the land becomes bare of snow and when open water appears near the place selected for the nest. In the gulf of St. Lawrence most Eiders make their nests in June, though some nest in May and some in early July. In more northern regions the nesting is later. Most Eiders prefer to nest in the safe seclusion of small islands in the salt water, which are very numerous along some of our shores. Occasionally Eiders nest on the mainland. The nest is a slight hollow in the ground, lined with down

and a few feathers from the duck's breast. More or less rubbish is usually mixed with the down. The nests are fairly easy to find, being often in exposed situations, although many are sheltered by rocks or shrubbery. Eiders sometimes nest on wooded islands in the southern parts of their range, but most of the islands on which they make their nests are practically treeless.

There are usually four or five greenish olive eggs to each nest. They hatch after the duck has been sitting for about four weeks. Soon after hatching, the downy young take to the water, where they swim and dive readily. They do not have the colours of the adult birds until they are more than two years old.



Nest and Eggs of American Eider. Photograph taken, 1921, near Mingan, Saguenay Co., Quebec, by C. B. Day.

Most of the eider-down is collected from the nest soon after the duck begins to sit. When properly cleaned, such down is of the first quality. Some down should be left under the eggs at this first gathering. The duck will add to this the down remaining on her breast, but this should not be gathered until after the young ducks leave the nest, when all the down in the nest should be collected promptly. If it is left in the nest after the birds have gone, the down loses all elasticity and becomes valueless. The average yield of down per nest is about one ounce. It is best to collect the down on bright, sunny days, when it is dry and warm. If care is exercised by the collector to see that no unnecessary dirt is gathered with the down, the process of cleaning the down will be greatly simplified. The foreign material most difficult to remove from down gathered on the north shore of the gulf of St. Lawrence is small twigs, which are quite common in down from that region because there the Eiders often nest among bushes or trees. It is particularly important to gather the down as free from these twigs as possible.

Down that has been at all soiled by the excrements of the Eider cannot be cleaned or used. There is little chance of the down being soiled by such matter unless the sitting duck is frightened from the nest, in which case she is apt

to discharge ill-smelling excrements as she leaves, and so soil part of the down and render that part valueless. Therefore Eiders on nests from which the down is to be gathered should be disturbed as little as possible.

In most places the gathering of the down can be completed before the sum-

mer fishing begins.

It is not satisfactory to kill the Eiders in order to obtain the down, even where this method may be within the law. Not only are the birds that produce the down needlessly destroyed by this method, but down taken from the breasts of dead Eiders soon loses its elasticity and is of poor quality compared to that plucked naturally by the birds themselves from their living bodies.

After the down is gathered it may be cleaned at once or it may be stored in a dry place, out of reach of rats or mice, until a convenient opportunity for cleaning it occurs. There is no danger of bird parasites developing in it.

The process of cleaning the down, which has been developed in Iceland, is

interesting and not at all difficult.

When the time selected for cleaning the down is near, the down is spread out on fine days in a dry place in the sunlight, on a bright metal surface if possible. Every effort is made to avoid its becoming wet or even damp.

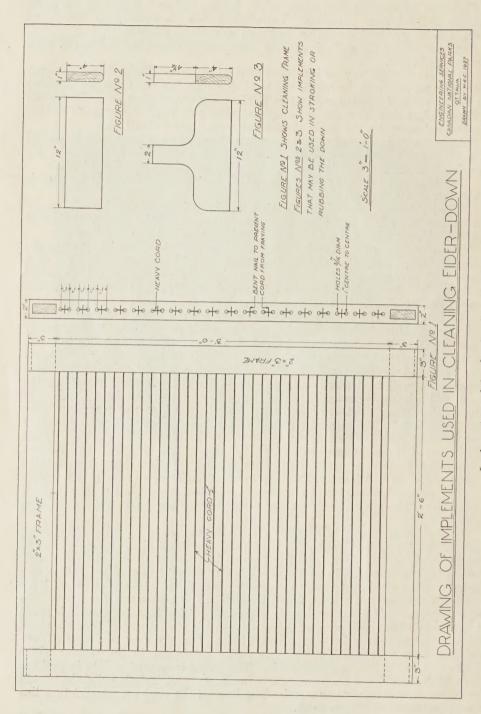
The drying must always be completed by artificial heat just before the down is cleaned. Heating and drying the down will cause it to become very elastic and expansive, while at the same time the moss, straw, leaves, and similar "dirt" in the down become brittle and crumbly. The separation of the down from the dirt is thus made much easier.

In Iceland the down to be heated is placed on a large, flat tray of castiron, about half an inch thick, which rests on a hot cook-stove. If such a tray is not available, the down may be heated in smaller quantities in a dry iron pot, on the back part of a cook-stove. Other methods that are locally convenient may be used satisfactorily if they follow the same general principles, so that the down is well heated without scorching. To guard against scorching, the down, while being heated, should be stirred constantly with bare hands. As long as the down is not too hot for the bare hands, it is not scorching. The best place in which to clean the down is in a building open on both sides, so that dirt and dust are continually removed by the air passing through. Time will be saved if one person heats down for four or five cleaners. In this way it is possible to clean as much as five pounds per person in a day. The cleaning is thus a work in which several members of one family often take part together.

The person heating the down keeps each cleaner supplied with a ball of heated down, about a foot in diameter. This the cleaner works upon a cleaning frame.

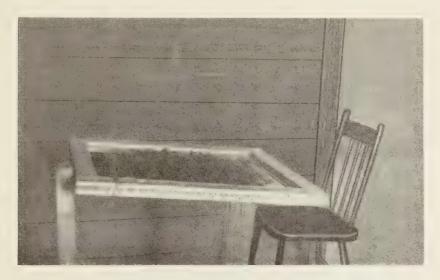
The cleaning frame is a stout wooden frame, made of 2-inch by 3-inch material, with mortised joints. It is oblong, measuring about 3 feet in length and  $2\frac{1}{2}$  feet in width. Back and forth across it is stretched very tightly a cord, about  $\frac{1}{8}$  inch in diameter, in such a way that the parallel lines of the cord across the open space within the frame are about 1 inch apart. The cord passes back and forth through small holes bored through the side-pieces of the frame. In order to prevent it from becoming slack through cutting into the wood it is made to pass over a bent nail, or other metal, fastened in the outside of the side-piece, in every alternate space between adjacent holes. The cord may be a piece of codline, but a strip of sealskin, which is easily obtainable in the regions where Eiders nest, is the best material for it. The frame is secured solidly in position about  $2\frac{1}{2}$  to 3 feet from the floor, nearly horizontal, but inclining slightly toward the operator, who may sit or stand. The lines of the cord are parallel to a line from side to side of the operator.

The operator places a ball of hot down on the part of the frame farthest from him and then strokes it rapidly and repeatedly toward him, pressing down



Wooden implements that may be used for stroking or rubbing the down. Implements used in cleaning Eider-down, 1. Cleaning frame. 2 and 3.

upon it with considerable force during the strokes. The down is thus pressed upon the taut cords while it is being drawn across them to some extent. The operator does not take hold of the down to stroke it, but uses the hands fully extended, or uses a wooden implement, referred to below. As often as necessary the ball of down is lifted and placed again at the far end of the frame, in position for further stroking, which is at once administered. There is no need to handle the down gently when it is stroked with the hands; in fact, it is stroked with much force and treated quite roughly. The ball of down holds together, but dirt and small feathers fall in quantities between the cords. The down soon becomes cool, and must then be reheated, after which it is reworked, then reheated, and so on until it is clean of everything except a few small feathers.



Cleaning frame in position.

The down may be stroked on the frame with the tips of the fingers, the two hands being held fully extended, side by side, with palms down, or, if preferred, the dull edge of a wooden implement may be used for stroking the down. One long, well-rounded edge of a piece of inch board, about four inches wide and a foot long, is satisfactory for this purpose, or a piece of board cut in the shape of a very short-handled spade may be used. In stroking the down with any wooden implement, it is important to be careful not to use too great force, which might break up the down too much.

The process described above will remove from the down all of the dirt and most of the small breast feathers, but some of the feathers will remain in the down. These must be removed, one at a time, by hand. The ball of down should not be pulled to pieces for this purpose, but should be worked with the fingers in order to find the feathers, which, even when hidden in the heart of the ball, can be felt readily, because of the stiffness of their shafts. When a feather is found, it can be rapidly worked to the exterior of the ball of down and then removed. Soon no more feathers remain, and then the down is clean and ready for use or for sale

For shipment the down should be packed in bales or packages of strong cloth. Owing to its great elasticity, a large mass of it can be forcefully compressed into a comparatively small space without harm or damage.

Successful production of eider-down depends on adequate protection of the Eiders. In Iceland, where the eider-down industry has long been well established, Eiders are very carefully protected and encouraged. Severe penalties are provided for killing them and even for discharging a gun in the vicinity of the islands where they nest. These islands are usually privately owned, and, in order to induce large numbers of Eiders to nest on his property, each owner of a suitable island area is active in protecting the birds and even arranges as many nesting-places as possible for them. Snug openings are made in stone walls and the turf is cut into squares until it resembles a great checkerboard. Leafy branches stuck into the ground here and there are said to attract more birds than those that they actually shelter.



Cleaned Eider-down.

It is owing to this system of private control of the nesting-grounds, which stimulates a widespread private interest in the thorough protection of the ducks, that the eider-down industry in Iceland is flourishing. The Eiders are becoming so abundant and so tame that they even make their nests at times on the roofs and the window-sills of houses. They are almost like domestic ducks, except that the owner of the land on which they nest, who controls them and profits by them, has no need to feed or to shelter them. When an exceptional number of eggs is found in a nest, those considered surplus may be removed and placed in other nests where the original sets are smaller than normal. If, as sometimes happens, the downy ducklings find the way to the sea too rough for their little feet, their difficulties are soon noticed and prompt aid is given to them. Under such care, Eiders become so abundant that, in some instances, a single island produces nearly a hundred pounds of eider-down per year.

In North America the treatment given the Eiders was long in sharp contrast to that in Iceland, for in pioneer days, on this continent, they were persecuted severely. Both the birds and their eggs were taken in large quantities for food, although the flesh of Eiders is generally tough and oily, and not especially desirable. Under such conditions a thriving eider-down industry could not be

developed.

Since Canada and the United States agreed in ratifying the Migratory Birds Convention, Eiders have for several years enjoyed protection throughout the year in both of these countries. This complete protection, which in Canada is provided by the Dominion law called the Migratory Birds Convention Act, still continues over large areas, although an annual hunting season for these birds, extending from September 1 to December 14 in the Northwest Territories and Yukon Territory and from September 1 to December 15 in that part of the province of Ontario lying north of the Quebec-Cochrane-Winnipeg line of the Canadian National Railway, is now authorized.\* As a result of the protection given them in accordance with the Migratory Birds Convention, the Eiders have increased in numbers, especially, perhaps, about the gulf of St. Lawrence and Nova Scotia.

It is evident that we have here in Canada the fundamental conditions of a flourishing eider-down industry. We have the Eiders, the islands, and the local residents.

Not only Eider Ducks but also their feathers are protected in Canada by the Migratory Birds Convention Act. Consequently, it is necessary for those who would engage in the production of eider-down in Canada to obtain, before beginning operations, a permit from the Minister of the Interior, Ottawa, Canada. No charge is made for the granting of such a permit, but permits will be granted only where there is bona fide intention to protect the Eiders and build up the eider-down industry, and where the conditions are such as to make success possible. The Canadian National Parks Service, Department of the Interior, Ottawa, will be pleased to lend to responsible persons lantern slides or standard motion picture films, showing Eider Ducks and the method of gathering and cleaning eider-down.

A thriving Canadian eider-down industry will mean more income for hundreds of Canadians, particularly in pioneer communities, where the need is greatest. It will mean the association of the name of Canada with one more product of superior quality and the creation of real values from bare and rocky islands that are now economically valueless. Last, but not least, it will mean exploitation without consumption, and conservation for perpetual revenue, of that excellent natural resource, the Eider Duck,

Copies of this pamphlet and others issued to further bird protection in Canada as well as copies of the Migratory Birds Convention Act may be obtained from the Commissioner of Canadian National Parks, Department of the Interior, Ottawa—M.B.L. 24, 1926.

<sup>\*</sup>June, 1926. The Regulations may change from time to time, but the most recent information concerning them will be furnished gladly by the Canadian National Parks Service, upon request.



